CLAIMS

1. An optical print head comprising:

a light-emitting device comprising $n \times p$ light-emitting parts, n first electrodes each connected to one terminal of p of the light-emitting parts, and p second electrodes each connected to another terminal of n of the light-emitting parts, wherein selection among the light-emitting parts is achieved by selecting one among the first electrodes and one among the second electrodes; and

a driving IC device comprising n first output terminals connected individually to the first electrodes of the light-emitting parts and m second output terminals connected individually to the second electrodes of the light-emitting parts,

wherein, in total, q light-emitting devices are provided for one driving IC device, the number q of light-emitting devices being determined by the number p of second electrodes provided on each light-emitting device and the number m of second output terminals provided on each driving IC device.

2. An optical print head as claimed in claim 1,

wherein, in each light-emitting device, the first and second electrodes are arranged on both sides of the light-emitting parts.

3. An optical print head as claimed in claim 1,

wherein, in each light-emitting device, the first and second electrodes are arranged on one side of the light-emitting parts.

4. An optical print head as claimed in claim 1,

wherein each driving IC device comprises a circuit for storing at least $n \times p \times q$ pieces of print data.

5. An optical print head as claimed in claim 1,

wherein a plurality of blocks each consisting of one driving IC device and q light-emitting devices connected thereto are arranged on a substrate.

6. An optical print head as claimed in claim 5,

wherein, in each light-emitting device, the first and second electrodes are arranged on both sides of the light-emitting parts.

7. An optical print head as claimed in claim 5,

wherein, in each light-emitting device, the first and second electrodes are arranged on one side of the light-emitting parts.

8. An optical print head as claimed in claim 5,

wherein each driving IC device comprises a circuit for storing at least $n \times p \times q$ pieces of print data.

9. An optical print head as claimed in claim 5,

wherein, among a plurality of driving IC devices, part of terminals thereof by way of which print data is input thereto or output therefrom are connected in a cascade connection to permit adjacent driving IC devices to transmit and receive print data to and from each other.

10. An optical print head comprising:

a substrate;

a plurality of light-emitting devices arranged in a row along longer sides of the substrate;

a smaller number of driving IC devices than the light-emitting devices provided on the substrate;

a first conductor pattern for connecting each driving IC device to a predetermined number of light-emitting devices corresponding thereto on a common basis; and

a second conductor pattern for connecting each driving IC device to a predetermined number of light-emitting devices corresponding thereto on an individual basis.

11. An optical print head as claimed in claim 10,

wherein the driving IC devices consist of a plurality of driving IC devices having an identical configuration.

12. An optical print head as claimed in claim 10,

wherein each light-emitting device comprises a plurality of light-emitting parts of which one terminal is connected to the first conductor pattern and of which another terminal is connected to the second conductor pattern,

wherein, in each light-emitting device, the light-emitting parts thereof are driven on a time-division basis so that p groups of n light-emitting parts are driven one group after another.

13. An optical print head as claimed in claim 10,

wherein each light-emitting device comprises a plurality of light-emitting parts of which one terminal is connected to the first conductor pattern and of which another terminal is connected to the second conductor pattern,

wherein each driving IC device drives all the light-emitting parts of q light-emitting devices on a time-division basis so that m groups of n light-emitting parts are driven one group after another.

14. An optical print head as claimed in claim 10,

wherein the first and second conductor patterns have conductors, each having a length substantially equal to a length of the row of the plurality of light-emitting devices, arranged on both sides of the row of the light-emitting devices.

15. An optical print head as claimed in claim 14,

wherein the driving IC devices are arranged on a side of the row of the light-emitting devices where a total width occupied by the conductors arranged on both sides of the row of the light-emitting devices is smaller.

16. An optical print head as claimed in claim 10,

wherein the first and second conductor patterns have conductors, each having a length substantially equal to a length of the row of the plurality of light-emitting devices, arranged on one side of the row of the light-emitting devices.

17. A driving IC device for supplying a driving current to a light-emitting device having a plurality of light-emitting parts arranged in a row, the driving IC device comprising

n first output terminals each connected to one terminal of *m* light-emitting parts and a first drive section connected to the first output terminals,

wherein the first drive section comprises:

a data signal storage circuit for storing at least $n \times m$ data signals fed in sequentially via *r* input terminals;

a data selecting circuit for selecting and extracting, in groups of *n*, the data signals stored in the data signal storage circuit; and

a drive circuit for outputting drive signals individually to the first output terminals on a basis of the data signals selected by the data selecting circuit.

18. A driving IC device as claimed in claim 17, further comprising *m* second output terminals each connected to another terminal of *n* light-emitting parts and a second drive section for selectively connecting one of the second output terminals to a predetermined potential.

19. A driving IC device as claimed in claim 17,

wherein the data signal storage circuit is composed of a shift register that stores $n \times m$ data signals when *r* data signals are fed in and a latch circuit that stores $n \times m$ data signals, and

the data selecting circuit selects and extracts, in groups of *n*, the data signals stored in the latch circuit.

20. A driving IC device as claimed in claim 19, further comprising *m* second output terminals each connected to another terminal of *n* light-emitting parts and a second

drive section for selectively connecting one of the second output terminals to a predetermined potential.

21. A driving IC device as claimed in claim 17,

wherein the data signal storage circuit is composed of a shift register that stores $n \times m$ data signals when r data signals are fed in, and

the data selecting circuit is composed of a latch circuit that selects and extracts, in groups of n, the data signals stored in the shift register and that stores the n data signals thus extracted.

22. A driving IC device as claimed in claim 21, further comprising m second output terminals each connected to another terminal of n light-emitting parts and a second drive section for selectively connecting one of the second output terminals to a predetermined potential.

23. A driving IC device as claimed in claim 17,

wherein the first drive section further comprises a correction data storage circuit for storing $n \times m$ correction data signals with which to correct the $n \times m$ data signals.

24. A driving IC device as claimed in claim 17,

wherein the driving IC device is for driving a light-emitting device having m or less groups of n light-emitting parts group by group on a time-division basis.

25. A driving IC device for supplying a driving current to a light-emitting device

having a plurality of light-emitting parts arranged in a row, the driving IC device comprising n first output terminals each connected to one terminal of m light-emitting parts, m second output terminals each connected to another terminal of n light-emitting parts, a first drive section connected to the first output terminals, a second drive section connected to the second output terminals, and a timing control circuit,

wherein the first drive section comprises:

a data signal storage circuit for storing at least $n \times m$ data signals fed in sequentially via r input terminals;

a data selecting circuit for selecting and extracting, in groups of n, the data signals stored in the data signal storage circuit on a basis of m division timing signals fed from the timing control circuit; and

a drive circuit for outputting drive signals individually to the first output terminals on a basis of the data signals selected by the data selecting circuit, and

the second drive section switches sequentially among the m second output terminals on a basis of the m division timing signals.

26. A driving IC device as claimed in claim 25,

wherein the number r of input terminals is equal to the number m of second output terminals.

27. A driving IC device as claimed in claim 25,

wherein the first drive section further comprises a correction data storage circuit for storing $n \times m$ correction data signals with which to correct the $n \times m$ data signals.

28. A driving IC device as claimed in claim 25,

wherein the driving IC device is for driving a light-emitting device having m or less groups of n light-emitting parts group by group on a time-division basis.

29. An optical print head comprising a light-emitting device having a plurality of light-emitting parts and a driving IC device for supplying a driving current to the light-emitting parts of the light-emitting device,

wherein the light-emitting device comprises n first electrodes each connected to one terminal of a plurality of light-emitting parts,

the driving IC device comprises n first output terminals connected individually to the first electrodes of the light-emitting device and a first drive section for outputting the driving current via the first output terminals, and

the first drive section comprises a data signal storage circuit for storing at least $n \times m$ data signals fed in sequentially via r input terminals, a data selecting circuit for selecting and extracting, in groups of n, the data signals stored in the data signal storage circuit, and a drive circuit for outputting drive signals individually to the first output terminals on a basis of the data signals selected by the data selecting circuit.

30. An optical print head as claimed in claim 29, wherein the driving IC device further comprises m second output terminals each connected to another terminal of n light-emitting parts and a second drive section for selectively connecting one of the second output terminals to a predetermined potential.

31. An optical print head as claimed in claim 29,

wherein the data signal storage circuit is composed of a shift register that stores $n \times m$ data signals when r data signals are fed in and a latch circuit that stores $n \times m$ data signals, and

the data selecting circuit selects and extracts, in groups of n, the data signals stored in the latch circuit.

32. An optical print head as claimed in claim 31, further comprising m second output terminals each connected to another terminal of n light-emitting parts and a second drive section for selectively connecting one of the second output terminals to a predetermined potential.

33. An optical print head as claimed in claim 29,

wherein the data signal storage circuit is composed of a shift register that stores $n \times m$ data signals when r data signals are fed in, and

the data selecting circuit is composed of a latch circuit that selects and extracts, in groups of n, the data signals stored in the shift register and that stores the n data signals thus extracted.

34. An optical print head as claimed in claim 33, further comprising m second output terminals each connected to another terminal of n light-emitting parts and a second drive section for selectively connecting one of the second output terminals to a predetermined potential.

35. An optical print head as claimed in claim 29,

wherein the first drive section further comprises a correction data storage circuit for storing $n \times m$ correction data signals with which to correct the $n \times m$ data signals.

36. An optical print head as claimed in claim 29,

wherein the driving IC device is for driving the light-emitting device having m or less groups of n light-emitting parts group by group on a time-division basis.

37. An optical print head comprising a light-emitting device having a plurality of light-emitting parts and a driving IC device for supplying a driving current to the light-emitting parts of the light-emitting device,

wherein the light-emitting device comprises n first electrodes each connected to one terminal of m light-emitting parts and m second electrodes each connected to another terminal of n light-emitting parts,

the driving IC device comprises n first output terminals connected individually to the first electrodes of the light-emitting device, a first drive section for outputting the driving current via the first output terminals, m second output terminals connected individually to the second electrodes of the light-emitting device, a second drive section for keeping one of the second output terminals at a predetermined potential so as to make the light-emitting part connected thereto active, and a timing control circuit for outputting m division timing signals,

the first drive section comprises a data signal storage circuit for storing at least $n \times m$ data signals fed in sequentially via r input terminals, a data selecting circuit for selecting and extracting, in groups of n, the data signals stored in the data signal storage circuit on a basis of the m division timing signals fed from the timing control circuit, and a drive circuit for outputting drive signals individually to the first output terminals on a basis of the data signals

selected by the data selecting circuit, and

the second drive section switches sequentially among the m second output terminals on a basis of the m division timing signals.

38. An optical print head as claimed in claim 37,

wherein the number r of input terminals is equal to the number m of second output terminals.

39. An optical print head as claimed in claim 37,

wherein the first drive section further comprises a correction data storage circuit for storing $n \times m$ correction data signals with which to correct the $n \times m$ data signals.

40. An optical print head as claimed in claim 37,

wherein the driving IC device is for driving the light-emitting device having m or less groups of n light-emitting parts group by group on a time-division basis.